

PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	A
PO038598	ACI001-VC			1 Net 30	M6061T6R0.250	6061-T6 Round Bar 0.250" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft				20	12/13/2017	20	<i>S021843</i>	Stock	12/14/2017	\$ 0.16 / ft	C	
					M6061T6R0.375	6061-T6 Round Bar .375" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft						20	<i>S021844</i>	Stock	12/14/2017	\$ 0.38 / ft		
					M6061T6R1.500	6061-T6 Round Bar 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft						20	<i>S021845</i>	Stock	12/14/2017	\$ 5.52 / ft		
					M6061T6R0.625	6061-T6 Round Bar .625" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft					40		40	<i>S021846</i>	Stock	12/14/2017	\$ 1.00 / ft	
					M6061T6R0.750	6061-T6 Round Bar .750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft						40	<i>S021847</i>	Stock	12/14/2017	\$ 1.34 / ft		
					M304R0.4375	304 Round Bar 0.4375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft				12		12	<i>S021848</i>	Stock	12/14/2017	\$ 1.53 / ft		
					M303R0.500	303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft				36		36	<i>S021849</i>	Stock	12/14/2017	\$ 1.97 / ft		
					M303R0.750	303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE:304/316 NOT ACCEPTABLE receive ft						36	<i>S021850</i>	Stock	12/14/2017	\$ 4.75 / ft		

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	A C	
		12			M4140H-R1.250	4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI4140OR ASTM A304-02-A-434-BC/- A193-03-GRADE B7-A29- 03-A322-91 OR UNS#- G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft					6		6		S021851	Stock	12/14/2017	\$ 6.92 / ft	
		13			M6061T6B0.625X01.500	6061-T6 Bar .625 X 1.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					20		20		S021852	Stock	12/14/2017	\$ 3.26 / ft	
		14			M6061T6B1.000X04.000	6061-T6 Bar 1.00 X 4.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					12		12		S021853	Stock	12/14/2017	\$ 12.77 / ft	
		16			M6061T6B1.000X02.000	6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ- A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft					40		36		S021854	Stock	12/14/2017	\$ 7.46 / ft	
		18			M304S16GA	304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf					192		192		S021855	Stock	12/14/2017	\$ 6.51 / sf	
		19	2		M304S14GA	304SS sheet .080 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf					64		64		S021856	Stock	12/14/2017	\$ 8.37 / sf	
		20	1		M304S22GA	304/316 .032 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf					96	12/13/2017	32		S021857	Stock	12/14/2017	\$ 3.62 / sf	
													Total:	654		586			



ACIER OUELETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tel.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248  
Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

## Order - Sales

Copy C000066318

Customer Nº CL0001056

Date 2017/12/11

Delivery date 2017/12/12

Your order Nº 38598

Processed by Josianne Bourdon

Salesman

Carrier OUELETTE VALLEYFIELD

Credit Termes Net 30 Days

Delivery Route 5 Page 1

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
1 ROUND ALU 1/4 6061-T6 RANDOM RAL-14-V 1 X 20' HEAT : 67081	1.16	20.00	PI_SCLB	1.00							
2 ROUND ALU 3/8 6061-T6 RANDOM RAL-38-V 1 X 20' HEAT: C4551/14-1	2.64	20.00	PI_SCLB	1.00							
3 ROUND ALU 1 1/2 6061-T6 RANDOM RAL-112-V 1 X 20' HEAT: 36375	41.52	20.00	PI_SCLB	1.00							
4 ROUND ALU 5/8 6061-T6 RANDOM RAL-58-V 2 X 20' HEAT 66092	14.44	40.00	PI_SCLB	2.00							





ACIER OUELETTE INC.

935, Boul. du Havre  
Salaberry de Valleyfield (Québec) J6S 5L1  
Tel.: 450-377-4248 Mtl.: 514-336-4248 Ext.: 800-557-4248  
Fax: 450-377-5696 Mtl.: 514-336-4246 Ext.: 866-456-4242

**Order - Sales**

Copy CO00066318

Customer Nº CL0001056

Date 2017/12/11

Delivery date 2017/12/12

Your order Nº 38598

Processed by Josianne Bourdon

Salesman

Carrier OUELETTE VALLEYFIELD

Credit Termé Net 30 Days

Delivery Route 5

Page 3

Product Description	Weight	Qty	U/M	PCS NB			Internal Use Only				
				CMD	EXP	B/O	IN	I	S	C	OUT
9 ROUND 4140 HEAT TREAT 1 1/4 RANDOM R4140-114H-V 4897 1 X 6' HEAT: <i>NFI6202066</i>	25.03	6.00	PI_SCLB	1.00							
COUPE A LA SCIE 1		1.00	UN								
10 FLAT ALU 5/8 X 1 1/2 6061-T6 RANDOM FAL-58112-V 2631 1 X 20' HEAT: <i>201604056</i>	22.06	20.00	PI_SCLB	1.00							
11 FLAT ALU 1 X 4 6061-T6 RANDOM FAL-14-V 2532 1 X 12' HEAT: <i>68708</i>	57.60	12.00	PI_SCLB	1.00							
12 FLAT ALU 1 X 2 6061-T6 RANDOM q 2497 2 X 20' HEAT: <i>5207765802</i>	96.00 40.00	PI_SCLB	2.00								

<i>36</i>
-----------



5160

LES ACIERS OUELLETTE INC.  
BARRE RONDE LATON C360 F.C. ASTM B16  
.375" DIA X 144.0000"  
PART NO.

PO/Ref AC00009208

We certify that this is a true copy of the report  
furnished by the producer of the metal, or data  
resulting from tests made in approved labs.

## Certificate of Mill Test Results

BL.PRC.061365-001

20Sep17

Pg. 1/1

Signed by: 

Walczownia Metali  
"DZIEDZICE" S.A.  
43-502 Czechowice-Dziedzice  
ul. Kaniowska 3

**ŚWIADECTWO ODBIORU 3.1**  
**INSPECTION CERTIFICATE 3.1**  
EN10204

Nr świadectwa/Certical No  
**C24551/1-4-1**

Adres odbiorcy: THYSSENKRUPP MATERIALS NA  
Delivery address: TORONTO 2821 LANGSTAFF ROAD  
CONCORD, L4K 5C6 ONTARIO KANADA

Zamawiający: THYSSENKRUPP MATERIALS NA  
Purchase: 2821 LANGSTAFF ROAD CONCORD, L4K 5C6  
ONTARIO KANADA

Nr zlecenia wytwórcy:

Nr zamówienia klienta:

Order No:

Purchase Order No:

Nr kontraktu:

Pozostałe oznaczenia:

Our contract No:

Other Ind. codes:

## Wyszczególnienie zamówienia / Order Specification

Przedmiot odbioru: Pręt/Ciągniki/Okrągły/Ödënski  
Object of inspection: Rod/Drawn/Round Sections

Dodatkowe wymagania:  
Additional requirements:

Oznaczenie:  
Designation: B.Rods C36000 H02 RND 0.375" x 144"

Gatunek / Alloy:	C36000	Parametr / Parameter	Wymiar / Dimension [mm]	Tolerancja / Tolerance
Norma chemiczna/Chemical standard:	ASTM B16-10	Szerokość zewnętrzna/OD (width) [inch]	9.525	
Stan dostawy / Temper:	H02 -wg ASTM B16	Szerokość wewnętrzna / ID [inch]		
Norma wymiaru/Mechanical standard:	ASTM B 249-10	Grubość / Thickness [inch]		
Norma wymiaru/Tolerance standard:	ASTM B 249-10	Długość OD/ Dimensions-long [inch]	3660	
Kształt:		Długość DO/ Dimensions-long [inch]		

## Skład chemiczny / Chemical composition [%]

Nr partii Lot No	Cu	Pb	Fe	Zn	Pozostałe Others/Resid.
C24551/1-4-1	60,47	2,8	0,14	resztą/remain.	0,126

## Właściwości mechaniczne / Mechanical properties

	Rm / ksi	Rp0.5 / ksi	A / %
Min	62,50	49,01	16
Max	63,51	50,17	16
Liczba prób	4	4	4

## Pakowanie / Packing

Szukie, Wązki Pieces [szt., / pes.]	Skrzynie Cases [szt., / pes.]	Waga netto Nett Weight [lb]	Oznakowanie Marking
7	6873,93		b

## Uwagi/ Comments

Przedmiot odbioru został zgodnie zgodnie z zamówieniem  
Surface and the dimensions had been tested and were found in comply with the order

Materiał spawany / produkowany w Polsce  
Material welded and manufactured in Poland

Na podstawie przeprowadzonych badań wytrzymałościowych i technologicznych stwierdzono, że wykonany  
materiał jest zgodny z warunkami zamówień oraz z Dyrektywą BfRIS II nr 2011/65/EC.  
Based on the strength and technological tests it was concluded that the material had been made in accordance  
with the terms of the contract and BfRIS II Directive no. 2011/65/EC

Z-za Kierownika Zespołu Fabrycznego  
Z-za Kierownika Zespołu Fabrycznego  
Z-za Kierownika Zespołu Fabrycznego  
Z-za Kierownika Zespołu Fabrycznego  
Michał Wolski

Dokument generowany komputerowo / Computer-generated document

Czechowice-Dziedzice 2017-05-26

<http://www.walczownia.com.pl>

Strona/Page 1/1



#5135

TRA-1498

## Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER, #201  
LAVAL, QC  
H7L5R2

# commande Sapa / Sapa order # : 6090684

# bon de commande / Purchase order # : OU-46528

# de matrice / Die # : MS 13128

Description : 1/4" O.D. ROD

Alliage & trempage / Alloy & temper : 6061 T6

Longueur / Length : 6097 mm

# Contrôle / Control # : 76511-3

# Coulée / Cast # : 67081 *ml*

Dureté Rockwell E /  
Rockwell E hardness : 88 HRE

Min. requis /  
Min. required : 88 HRE

Max. permis /  
Max. permitted : 100 HRE

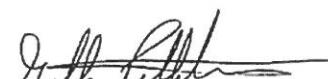
### Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Tl
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,66-0,74	0,14 - 0,28	0,08 - 0,16	0,18 - 0,26	0,46 - 0,54	0,03 Max	0,05 Max	0,05 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	...	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen). *ml*

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen).

Sincèrement vôtre, date : 2016-10-06  
Yours truly,



Gilles Pelletier  
Technicien de la qualité  
Quality technician

  
ml 7/10/16

RAL-112-V #5119

400707 Ma-1889

## BON DE LIVRAISON

VENDU A: ACIERS TRANSBEC (1997) LTÉE  
4054, BOUL LE CORBUSIER  
#201  
LAVAL, QC  
H7L 5R2  
NO CLIENT: 3693

NO CLIENT: L-3693

NO DU BON	DATE DE LIVRAISON
120289	12/May/17
NR:	NO DE TÉLÉPHONE DU CLIENT
R-015478-2	450-983-3693
NO COMMANDE CLIENT	REPRÉSENTANT
PAJ-47729	Guillaume Morin
CHAUFFEUR:	NO COMMANDE EXTRUDEX
JIMMY AYOTTE	104648

NO.	NO DE FILIÈRE	NO PIÈCE CLIENT	DESCRIPTION ALLIAGE/TREMPO PAGE	LONGUEUR	FINITION	COMMANDE CLIENT	A VENIR	NO TICKET	EN LIVRAISON	%
ITEM				MM	NATUREL MILL.	NO PIÈCES KILOS	NO PIÈCES KILOS	NO PESERS	NO PIÈCES KILOS	
14	SA00586		TIGE RONDE 1 1/2 8061/TG	6096mm	NATUREL MILL.	27 500	0 0	104648-14-1A1 400510	29 547	100
							Sous-Total:	1	29 547	

### 5. MILLTEST + CERT. CONFORMITÉ

#### Mill Test (Tensile Properties of Aluminum)

Test Date: 4/May/17

Order No.	Alloy	Temper	Yield (ksi)	Ultimate Tensile (ksi)	Total Elongation (%)	Hardness (Rockwell E)	Conductivity %	Report No.
104648-14-1A1	8061	16	43.0	45.9	16.75	94.50		6980

#### Certificate of compliance (Certificat de conformité)

Normes: (ANSI B35.1-1997) & (ASTM B22)

Order No. Hardness (Webster) Cast No. CAST CHEMICAL COMPOSITION:

Order No.	Hardness (Webster) #1	Hardness (Webster) #2	Cast No.	Al	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Hi	Pb	Sn	Sr	Cn
104648-14-1A1	11	15	36375	98.08	0.55	0.19	0.10	0.07	0.83	0.05	0.00	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

12 MAI 2017

RAL 112

LAVAL

112

112

112

SIGNATURE  
CLIENT:

EB

DATE: 05/12/17

12

45854

68623

RAL 58

## Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTEE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER, #201  
LAVAL, QC  
H7L5R2**

# commande Sapa / Sapa order # : **6031289**

# bon de commande / Purchase order # : **OU-45668**

# de matrice / Die # : **MS 9907**

Description: **5/8"DIA ROD**

Alliage & trempage / Alloy & temper : **6061 T6** Longueur / Length : **6097 mm**

# de contrôle / Control # : **65547-1**

# de coulée / Cast # : **66092**

Dureté Rockwell E /  
Rockwell E hardness : **93 HRE** Min. requis /  
Min. required : **88 HRE** Max. permis /  
Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
<b>6063</b>	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
<b>6005</b>	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
<b>6005A</b>	0,66-0,74	0,14 - 0,28	0,08 - 0,16	0,18 - 0,26	0,46 - 0,54	0,03 Max	0,05 Max	0,05 Max
<b>6061</b>	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
<b>6351</b>	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	---	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,  
Yours truly,

date : **2016-05-12**



Gilles Pelletier  
Technicien de la qualité  
Quality technician

#5157

## Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTEE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER, #201  
LAVAL, QC  
H7L5R2**

# commande Sapa / Sapa order # : **7020941**

# bon de commande / Purchase order # : **OU-47416**

# de matrice / Die # : **MS 9909**

Alliage & trempage / Alloy & temper : **6061 T6** Description : **3/4"ROD**

Longueur / Length : **6097 mm**

# Contrôle / Control # : **85611-1**

# Coulée / Cast # : **68706**

Dureté Rockwell E /

Rockwell E hardness : **91 HRE**

Min. requis /

Min. required : **88 HRE**

Max. permis /

Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,66 - 0,74	0,14 - 0,28	0,08 - 0,16	0,18 - 0,26	0,46 - 0,54	0,03 Max	0,05 Max	0,05 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	---	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,  
Yours truly,

date : **2017-03-28**

Daniel Alfredo Pelleter  
Directeur Qualité  
Quality Director

#5779

Tidility C11182

## VIRAJ PROFILES LIMITED

VIRAJ

Works: SURVEY NO.- 25/1, 25/2, 26 & 34, Village- MAAN, Taluka- PALGHAR, Dist.- THANE, MAHARASHTRA -401 506, INDIA,  
e-mail- vielqe@viraj.com

## MILL'S CERTIFICATE

ORDER NO	PACKING LIST NO	INSPECTION NO	DATE
P004885	64/1008331/5	100006886214	07.07.2016
		GRADE	HEAT No
		304/304L	102445

BUNDLE NO :  
1100534981, 1100534980,

## DESCRIPTION

STAINLESS STEEL BRIGHT BARS

## COLD DRAWN POLISHED - 2H

SIZE	SHAPE	TOLERANCE	LENGTH	PIECES	WEIGHT
7/16"	ROUND	ASTM A484	12' - 14'	328	2,020.000 LB

## CHEMICAL ANALYSIS

%C	%Mn	%Si	%S	%P	%Cr	%Ni	%Cu	%Mo	%Co	%N2
0.0270	1.380	0.420	0.0220	0.0340	18.400	8.060	0.700	0.340	0.150	0.08500

## TEST RESULTS

0.2% yield strength ksi	Tensile Strength ksi	Elongation %	Reduction Of Area %	Hardness BHN	Grain Size NOS
94.0	108.0	42.0	70.0	220.0	7.0

## SPECIFICATION:

MATERIAL CONFIRMS TO DIN EN 10088-3:2005:WNR 1.4301/1.4307,EN 10222-5 AND EN 10272 COND-A & ASTM A182/A-182M-15, ~~ASTM A276/A276M-16~~ COND A, A479/A479M-15 COND A, A193/A193M-12b B8 CL-1, A320/A320M-11b B8 CL-1, A484 16, A388/A388M-05. ASME SA182-14, SA479-11, SA 193-11 B8 CL-1, SA320-11 B8 CL-1. ASTM A314-2008. IGC SATISFACTORY AS PER ASTM A 262-10 PRACTICE E. AMS 5639H /AMSS5647J (EXCEPT MARKING), QQ-S-763F, NACE MR0103-2012, NACE-MR0175/ISO-15156-2015. SAE-AMS-S-7720A, MIL-S-862-B, AISI 304/304L & UNS#S30400/S30403. CERTIFICATION AS PER EN 10204-3.1.

## REMARKS

MATERIAL IS FREE FROM MERCURY CONTAMINATION, FREE FROM WELD OR WELD REPAIRS, MICRO-FREE FROM CONTINOUS CARBIDE NETWORK ON GRAIN BOUNDARIES. MACRO:GOOD, MINIMUM SOLUTION ANNEALING TEMPERATURE 1050C, SOAKING TIME 1/2 HRS, WATER QUENCHED. MELT SOURCE:AOD. WE CONFIRM THAT THE MATERIAL HAS BEEN TESTED AND FOUND TO BE FREE FROM RADIOACTIVE CONTAMINATION. COUNTRY OF ORIGIN: INDIA.

We hereby certify that the material described above has been tested and complies with the terms of order/contract.

  
WORKS INSPECTOR  
K R K MURTHY



5760

RSS-34303-42

107137

Entorno ECOLÓGICO AVA, España  
P.C. Box 1.325.48000 Bilbao  
tel. 34-41-711300  
fax 34-41-7131630

Management Systems  
Certified by  
IRQA  
ISO 9001 / SG 6600380  
ISO 14001 / SG 1878678

ACEROS INOXIDABLES

OLARRA

48389

Trade Mark - Zeichen des Erstellers  
Anotación del primer situado

Works Inspector stamp - Werkssicherheitsstempel  
Sello del Inspector

3

Certificate type - APZ Nach Certificado tipo		EN 10204/3.1	Certificate nº - Pruf Nr. Certificado nº		271387	Date - Datum - Fecha					
Our order Nº Works - Nr Nº de Referencia	599799	Heat Schmelze Colada	409862	Your order Nº Bestell - Nr Pedido Nº	C101814	02 - 05 - 2016					
Steel Grade Werkstoff Calidad	AISI-303	According to Entspricht Corresponde				ASTM A 582 / A 582M-12.					
Shape and Size - Gegenstand Perfil y dimension ROUND 3/4"		Tolerance - Toleranz Tolerancia	Bundles Bunde Bultos	2	Bars Stabe Barras	Weight Gewicht Peso	2549 Lbs				
Requirements - Anforderungen - Exigencias											
QQ-S 764B-70. AMD2 COND.A. SAE AMS 5640U-07. TYPE I. EN 10.088-3.2014. 1.4305. MECAMAX - PLUS											
Melting process / Erschmelzungsart / Proceso de Fusión				Heat treatment / Warmebehandlung / Tratamiento térmico 1050C 4H/Std WATER/WASSER/AGUA							
E.A.F. / A.O.D.											
Solution annealed/Abgeschreckt/Hipertempern-Cold drawn/Gezogen/Estruido-Polished/Poliert/Pulido											
Test results - Ergebnis der Prüfungen - Resultados de los ensayos											
Dimension of Specimen Abmessung des Probekörpers Medida de las probetas	Rp0.2% KSI	Rp 1% KSI	Rm KSI	A EL SD %	A EL 4D %	Z %	Hardness Härte HBw				
RD. 12,50 mm.	Min										
	Max.						262				
Temperature °C 20	Spec. Nº Probe Nr. Pro Nr.	1	74	87	103	37	55 229				
C	Si	Mn	P	S	Cr	Mo	Ni	Cu	N	Co	
Mn				0,150	17,00		8,00				
Max.	0,150	1,00	2,00	0,200		19,00		10,00	0,70	0,1000	
	0,046	0,39	1,83	0,035	0,309	17,65	0,34	8,45	0,53	0,0365	0,15
Visual and dimensional inspection Besichtigung und Ausmessung Control visual y dimensional		Radioactivity inspection Radioaktivitätskontrolle Control de Radioactividad		Anti mixing test Spektroskopische Verwechslungstest Antimixida		O.K.		O.K.		Grain Size Korngrösse Tamaño de grano	
Remarks - Bemerkungen - Observaciones											
Free From Mercury contamination/Quecksilberfreiheit. No weld repair.											
EDV / EDP Acc. EN 10.201 Marian Tejedo Quality Mng											
Works inspection Diel. Werkssicherheit und je Inspector de fábrica											

#4897

R4140-114A-V

TRA 2012

# CERTIFICATE OF TEST

# CERTIFICAT D'ESAI

Page 01 of 02

Certification Date  
1-SEP-2017CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

AC00008879

Invoice Number  
S697041

PART NUMBER/NUMÉRO DE PIÈCE

SOLD TO:	ACIER OUELLETTE INC	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	EXPÉDIÉ À:		
	22 BOULEVARD J-F KENNEDY		22 BOULEVARD J F KENNEDY
	ST JEROME QC J7Y 4B6		SAINT JEROME QC J7Y 4

Description: 4140/42 HEAT TREATED GROUND AND POLISHED BAR  
 1-1/4 RD X 24" R/L Line Total: 102 LB  
 HEAT: NF16202066 ITEM: 506068

Specifications:  
 ASTM A193 GR B7 15      ASTM A434 CL BC 12      ASME SA193 GR B7 15  
 ASTM A108 13      ASTM A29 15

## CHEMICAL ANALYSIS

AL	C	CB	CR	CU	MN	MO	NI
0.025	0.41	0.003	0.96	0.14	0.90	0.17	0.10
P	S	SI	SN				
0.011	0.019	0.25	0.0090				

RCPT: R136834

COUNTRY OF ORIGIN : USA

## MECHANICAL PROPERTIES

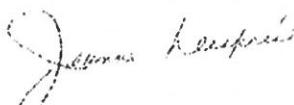
DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	122.5	140.0	18.5	55.5	305

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES


MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST

## CERTIFICAT D'ESAI

Page 02 of 02

Certification Date  
1-SEP-2017

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT

AC00008879

Invoice Number  
S697041

PART NUMBER/NUMÉRO DE PIÈCE

SOLD TO:	ACIER OUELLETTE INC	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:		EXPÉDIÉ À:	
	22 BOULEVARD J-F KENNEDY ST JEROME QC J7Y 4B6		22 BOULEVARD J F KENNEDY SAINT JEROME QC J7Y 4

Description: 4140/42 HEAT TREATED GROUND AND POLISHED BAR  
1-1/4 RD X 24' R/L Line Total: 102 LB

HEAT: NF16202066 ITEM: 506068

END-QUENCH HARDENABILITY (JOMINY - RC)

1	2	3	4	5	6	7	8	9	10	12	14	16	18	20
57	57	57	57	57	57	56	54	53	51	48	47	44	44	43
24	28	32												
41	39	36												

IDEAL DIAMETER : 5.2 IN GRAIN SIZE :8

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL

THERMAL TREATMENT: OK

AUSTENTIZE TEMP. 1600 F TIME (HR) 1 QUENCH MEDIUM OIL

TEMPER TEMP 1150 DEG F TIME (HR) 1

STRESS REL. TEMP. 1050 DEG F TIME (HR) 1.00

MACRO: OK

### COMMENTS

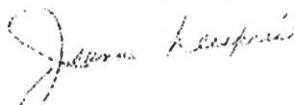
surface finish 32 ra  
red. ratio 32.4:1  
melted & mfg in usa  
mill: nucor steel division

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontra les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontra les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ



42507

2532

FAL-14-12 TRA 941

47714

## Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : LES ACIERS TRANSBEC (1997) LTEE.

Adresse / Address : 4054 BOUL. LE CORBUSIER # 201  
LAVAL, QC  
H7L5R2

# commande Sapa / Sapa order # : 7021578

# bon de commande / Purchase order # : OU-47427

# de matrice / Die # : MS 16386

Description : 4.00" X 1.00" FLAT BAR

Alliage & frempage / Alloy & temper :

6061 T6

Longueur / Length : 3657 mm

# Contrôle / Control # : 86430-1

# Coulée / Cast # : 68708

Dureté Rockwell E /  
Rockwell E hardness : 93 HRE

Min. requis /  
Min. required : 88 HRE

Max. permis /  
Max. permitted : 100 HRE

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Tl
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,66- 0,74	0,14 - 0,28	0,08 - 0,16	0,18 - 0,26	0,46 - 0,54	0,03 Max	0,05 Max	0,05 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	—	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

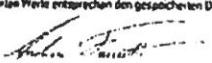
We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,  
Yours truly,

date : 2017-03-31

Daniel Alfredo Pelletier  
Directeur Qualité  
Quality Director

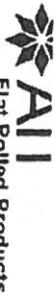
# 3419

Manufacturer / Fabricante / Hersteller	Type of document / Tipo de documento / Art der Prüfscheinprüfung	Document number / N° de certificado / Bezeichnung 0000253804 /									
<b>outokumpu</b>	<b>INSPECTION CERTIFICATE</b> <b>CERTIFICADO DE INSPECCION</b> <b>ABNAHMEPRÜFZEUGNIS</b> according to / de acuerdo con / nach EN 10204-3.1	Page / Página / Seite: 1 / 1									
1 Steel Drive; P.O. Box 13000; Calvert, AL 36513-1300											
Customer's order number / N° de Pedido Cliente / Kundenbestell-Nr. C17332											
Manufacturer's works order no / N° de Pedido Manufactory / Werkbestell-Nr. 901213420 / 002											
Delivery note no / N° de Entrega / Lieferantrags-Nr. 85454320 / 010											
Product / Producto / Urtzugriff SHEET/HOJAS/BLECH											
Terms of delivery / Condiciones de entrega / Lieferbedingungen ASTM A240/A240M-16a, ASME SA-240 Sec. II part A Ed.2015 ASTM A480/A480M-16b, ASME SA-480 Sec. II part A Ed.2015 ASTM A666-15		Steel grade and quality / Acero / Stahlart und Gütegruppe TYPE 304L/304									
Customer's material no./ N° de material del cliente/ Kundenmaterial-Nr.	Product dimensions (Thickness / Width / Length) / Dimensiones (Espesor / Ancho / Largo) / Maße des Erzeugnisses (Dicke / Breite / Länge)	Sampling procedure/ Proceso de muestreo / Musterabt.									
	1.52 mm x 1,219.20 mm x 2,438.40 mm 0.0600 inch x 48.0000 inch x 96.0000 inch	Finish/ Acabado/ Ausführung AOD									
Packag-No./ N° de Empaque/ Pack-Nr.	No of pieces/ Pza/s/ Stückzahl	Actual weight/ Peso efectivo/ Brutto-Gewicht	Cast No./ Böhne-Nr./ Band-Nr.	Heat No./ Código/ Schmelze	Sample id./ N° de muestra/ Proben-Nr.	Sample id./ N° de muestra/ Proben-Nr.					
7081588	34	2,601 lb / 1,180 kg	790960	514212	1000461411	1000461412					
Sum / Suma / Summe	34	2,601 lb / 1,180 kg									
Heat / Código / Schmelze	Country of Melt / País de calefacción / Erhitzungsland	Chemical composition / Composición Química / Chemische Zusammensetzung									
514212	USA	% C	% Si	% Mn	% P	% S	% Cr	% Mo	% Ni	% N	% Cu
0.027	0.36	1.29	0.025	0.0010	18.05	0.21	8.03	0.057	0.27		
Sample Position/ Local de la muestra/ Probenlage	TRANSVERSE										
Inspection lot/ Lote de inspección/ Prüflot	YS0.2% PSI / MPa	TS PSI / MPa	EL A2 <sup>nd</sup> %	HRB							
1000461411	43,610 / 300	97,316 / 671	57.7	84							
1000461412	42,784 / 295	97,026 / 669	58.1	84							
Resistant to intergranular corrosion / Resistant contra corrosión intergranular / Beständig geg. interkrist. Korrosion: ASTM A 262 PRACTICE E - Sample Acceptable											
Dimensions-surface / Dimensionen-Superficie / Maße-Oberfläche: OK											
Test of identity (spectrum analysis) / Control de identidad (análisis espectral) / Verwechslungsprüfung (Spektralanalyse): OK											
Heat Treatment: Solution annealed 1820 °F Min, Air or water cooled Bending test O.K.											
No welding or weld repairs were performed on this material											
No intentional additions of Mercury compounds were made or used											
Free of radioactive contamination											
EU RoHS Directive 2011/65/EU Compliant											
Product manufactured in the USA											
Country of Heat as per ISO 3166-1											
Dignatary of the document / Drogador del documento / Autógrafo der Bescheinigung		The information provided is a true copy of data on file. Los valores e información corresponden a los datos archivados. Die genannten Werte entsprechen den gespeicherten Daten				Date of issue and validation Fecha de emisión y validación Datum Ausstellung / Bestätigung 02/27/2017					
Outokumpu Stainless USA, LLC An ISO 9001: 2008 certified company EU PED 97/23/EC, Anex I, 4.3 certified		 Andrew F. Juchtiuk Phone: +1 251 870 3402 Name of expert / Nombre del experto / Name des Sachverständigen				This document shall not be altered or reproduced, except in the event of fraud, accident, or false statement or entries may be preserved by law.					
Certificate is power of attorney / Certificado es general autorización / Das Zeugnis ist Rechtsnachweis erstellt											

P998707



NOTICE OF SHIPMENT  
PACKING LIST



CERTIFICATE OF TEST

CUST. ORG. NO. & DATE		CUST. CODE	FINISHING LOCATION	SHIPPER NO.	PRODUCT CODE	W/LL ORDER NUMBER	DATE SHIPPED
P206081	FORMS DISTRIBUTION TO: ▶ 1	09/15/16 329587	VANDERGRIFT, PA	522741	13020102060000	30-096-243	12/13/16 INVOICE
	SHIP TO: ▶ 1	SPC	REPEAT ORDER # 99108-2	DO PRD ORDN	MATL	7219.90.0000	1121 VANDERGRIFT PA 657047

GRADE CARRIER - M & A TRANSPORT  
"ATI 304" STAINLESS STEEL SHEET C R COILS ANNEALED 2B FIN 3 EDGE

# ELONG AT FRACTURE

NR = DATA NOT REQUIRED  
GRADE VERIFICATION WAS CARRIED OUT SPECTROSCOPICALLY

EN 10204:2005 - 3.1 CERTIFICATE DOES NOT INDICATE PED APPROVAL FOR THIS MATERIAL.

THESE COMMODITIES OR TECHNOLOGY, WHEN EXPORTED FROM THE UNITED STATES, ARE IN ACCORDANCE WITH THE USA EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW IS PROHIBITED. U.S. LAW ALSO PROHIBITS DISPOSITION OF THESE COMMODITIES/TECHNICAL DATA TO ANY END-USER OR FOR ANY END-USE RELATED TO THE DESIGN, DEVELOPMENT, PRODUCTION, STOCKPILING, OR USE OF CHEMICAL, BIOLOGICAL, OR NUCLEAR WEAPONS, OR MISSILES, WITHOUT THE PROPER APPROVAL OF THE UNITED STATES GOVERNMENT.

THIS CERTIFIED MATERIAL TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL. FEDERAL LAW PROHIBITS THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE AND MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW. ATI FRP HOLDS SEVERAL QUALITY CERTIFICATIONS THAT INCLUDE ISO-9001, AS9100, NADCAP, AND ISO/IEC 17025. MATERIAL WAS MANUFACTURED IN ACCORDANCE WITH THE ATI FRP QUALITY MANUAL REVISION 24 DATED 10/16/2015.

PAGE 02 - CONTINUED ON PAGE 03

12/13/16 08:21:39

CONSIGNEE - Please Note - This consignment was turned over to carrier in first class condition, being correctly loaded at which time our responsibility for loss or damage in shipment ceases. For your protection please examine shipment as it arrives. If any shortage or damage is discovered, have a full description made by transportation agent on waybill before signing.

WARNING  
Safety Data Sheets for this product are available on our website, [www.ATIMetals.com](http://www.ATIMetals.com). A thorough review of the Safety Data Sheet for the grade of material purchased shall be performed prior to working with this product and all safety & health considerations outlined must be implemented.

  
Stephan Wolf -  
Director, Corporate Quality Assurance

NOTICE OF SHIPMENT  
PACKING LIST



CERTIFICATE OF TEST

CUST CHG NO & DATE	09/15/16	CUST CODE	FINISHING LOCATION	SHIPPER NO	PRODUCT CODE	W/M ORDER NUMBER	DATE SHIPPED
P206081		329587	VANDERGRIFT, PA	522741	13020102060000	30-096-243	12/13/16
FORMS DISTRIBUTION TO	1	SHP TO	REFEAT ORDER	DO PHL GOM CONTRACT	99108-2 26	7219.90.0000	INVOICE
		SPC	RATE	PRIME SEC.	1121	VANDERGRIFT	PA
			MATL	DSO	30	SHIP TO	657047

H9R 1C3

GRADE  
"ATI 304" STAINLESS STEEL SHEET C R COILS ANNEALED 2B FIN 3 EDGE

ATI FLAT ROLLED PRODUCTS PERFORMS CHEMICAL ANALYSIS BY THE FOLLOWING TECHNIQUES  
FOR TESTING LOCATIONS TC, BN, MI, & LO:

C, S BY COMBUSTION/INFRARED  
N, O, H BY INERT FUSION/ THERMAL CONDUCTIVITY  
MN, P, SI, CR, NI, MO, CU, CB, CO, V BY WDXRF  
B BY OES  
AL AND TI (>=0.10%) BY WDXRF, OTHERWISE BY OES  
PB, BI, AG BY GFRA

ATI FLAT<sup>TM</sup> ROLLED PRODUCTS HAS NO CONTROL OVER CUSTOMER PROCESSING OF MATERIAL; INCLUDING,  
BUT NOT LIMITED TO, BUFFING OR ELECTROPOLISHING MATERIAL WITH A 2B OR OTHER FINISH, AND, DOES NOT REPRESENT  
OR GUARANTY THAT THE MATERIAL IS SUITABLE FOR ANY PARTICULAR PROCESS OR USE OF CUSTOMER.

EN 10204:2005 3.1 CERTIFICATE.

TESTING WAS PERFORMED AT THE FOLLOWING LOCATIONS:

BN = ATI-FLAT ROLLED PRODUCTS; 100 RIVER ROAD; BRACKENRIDGE, PA 15014

TC = ATI-FLAT ROLLED PRODUCTS; 1300 PACIFIC AVENUE; NATRONA HEIGHTS, PA 15065

<<<<<< FOR ACCESS TO ONLINE CERTIFICATES OF TEST >>>>>>  
<<<<<< REGISTER AT MYATI.ATIMETALS.COM >>>>>>

PAGE 03 - FINAL PAGE.

12/13/16 08:21:39

CONSIGNEE: Please Note- This consignment was turned over to carrier in first class condition being correctly loaded, at which time our responsibility for loss or damage is discontinued. If any shortage or damage is discovered, have a full description made by transportation agent on waybill before signing.

WARNING  
Safety Data Sheets for this product are available on our website, [www.ATimetals.com](http://www.ATimetals.com). A thorough review of the Safety Data Sheet for the grade of material purchased shall be performed prior to working with this product and all safety & health considerations outlined must be implemented.

The above is a true copy of data on file. The material and test results conform to the dates contact and specification(s) as set forth in ATI Flat Rolled Products Order Acknowledgement.

Stephen Wolf -  
Director, Corporate Quality Assurance



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K 2Z3  
Canada

## METALLURGICAL TEST REPORT

6870 Highway 42 East  
Ghent, KY 41045-9615  
(502) 347-6000

Certificate: 283280 2

Customer: 007035 510

Your Order: 789405

NAS Order: PN 0077612 11

Corrosion: ASTM A262/15 A; 180Bend-OK

Date: 4/13/2017 Page: 1  
Steel: 304  
Finish: 2B

STAINLESS STEEL COIL C.R. ANNEALED & PICKLED, UNS 30400  
ASTM A240/15b, A480/15, A666/15, ASME SA140/15, SA1480/15, SA666/15  
CHEM ONLY ON FOLLOWING ASTM: A276/16, A479/16, A484/15, A312/16  
AMS 5513J MARK: MIL-S-5059D AMEND3 (X CROWN MEAS)  
RACE MR0175/150 15156-312009 A, MR0101/07/Q03766D-A X MAO PERM  
MTN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

\*Melted & Manufactured in the USA; Mat'l is DFARS Compliant  
\*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
04350J B	04350J B		.0600	48.0000	19.070	COIL		16	1 74264052

C H E M I C A L A N A L Y S I S CM(Country of Mfg) ES(Spain) US(United States) ZA(South Africa) JP(Japan)  
Lab Accreditation Bureau, ISO/IEC 17025, Certificate# 12323  
CHEM CM C % CR % CU % Mn % Ni % N % Ti % P % S %  
350J US .0428 18.0790 .3505 1.6670 .2805 .0799 8.0535 .0270 .0011

SI %

.3115

## M E C H A N I C A L P R O P E R T I E S

Product Id#	Coil #	1" UTS	20C %Y	20C ELONG %	Hard	Soft
04350J B	04350J B	F T 100.48	52.90	46.75	88.50	87.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.  
KRIS LARK  
4/13/2017

#3412

FESS-14G48 3042B

TRA-1418

## INSPECTION CERTIFICATE

烟茂實業股份有限公司

YIEN MAU CORP.

INVOICE NO. : F17ME10

COMMODITY : PRIMARY COLD ROILLED STAINLESS STEEL SHEETS  
AISI 304 OR GRANISH WIRE BARRED INCHES PER LINEAR

43. CIRCUMFERENCE: **AISI 304 2B FINISH WITH PAPER INTERLEAVED**

ASOCIACION  
CHILENA DE  
EMPRESAS SUSCRIPTORAS, INC.

CUSTOMER INFORMATION

工司高陞有限公司  
345, SHUN AN RD. LU CHU HSIEH  
KAOSHING HSIEH TAIWAN R.O.C.  
TEL: (07) 5972885 FAX: (07) 5973006  
CERTIFICATE NO: 17M161-1  
DATE OF ISSUE: 08/14/2017

5 9251

#### Mercury Contamination

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN MADE IN ACCORDANCE WITH THE RULES OF THE NAL CERTIFICATE

ASTM A666-15/ASME SA666-15 ANNEALED  
COUNTRY OF MELT AND MANUFACTURE: TAIWAN  
Material is 601 marked on bottom/ non-prime side

SEND TEST: 9000 FOR ALL HEAT

1 ASME SA210 0.5M10-15 ASTM A240 15A100 13 TYPE 304  
2 INTERPOLAR CORROSION IN ACCORDANCE WITH ASTM A262-  
3 15M100-13 20M100-15M100-18 100I CHUCK/ASTM G82 3/1

YIEN SHU CORR.

Manager of Quality Assurance 2011



North American Stainless Canada Inc.  
740 Imperial Road North  
Guelph, ON N1K1Z3  
Canada

## METALLURGICAL TEST REPORT

Certificate: 244878 3

Customer: 007035 501

6870 Highway 42 East  
Glent, KY 41045-9615  
(502) 347-6000

Date: 12/08/2016 Page: 1

Finish: 2B

Corrosion: ASTM A262/15 N, 180Bend-OK

Steel: 304

Your Order: 786645 NAS Order: PN 0074023 03

### PRODUCT DESCRIPTION:

W  
SPRINGLESS STAINLESS STEEL COIL/C.R. ANNEALED & PICKLED, UNS 30400  
ASME A340-15, A480/15, A666/15, ASME SA480/15, SA481/15, SR666/15  
CHEM ONLY ON FOLLOWING ASTM: A276/15, A479/15, A484/15, A312/15, SA312/15  
AMS 5513J (WORK) MIL-S-5059D (AMENDS (X) CROWN MEAS)  
RAISE MRO175/15/09 1515-03-07-009760-A X MAG PERM  
MIN. SOLUTION ANNEAL TEMP 1900F, WATER QUENCHED

### REMARKS:

Mat'l is Free of Mercury Contamination. No void repairs.  
EN 10204-2-004 3.1, RoHS 1 & 2 Compliant  
Material is Free of Radioactive Contamination  
Steel Making Process: EAF, AOD, & Cont. Casting  
Product Mfg. by a Quality Mgt. Sys. in Confg. w/ISO 9001  
\*Melted & Manufactured in the USA; Mat'l is DFARS Compliant

Product Id	Coil #	Skid #	Thickness	Width	Weight	Length	Mark	Pieces	Commodity Code
05208T AA	05208T AA		.0300	48.0000	16,690	COIL	9	1	74355225

W  
C H E M I C A L A N A L Y S I S CMC(Country of Mkt) ES(Spanish) US(United States) ZA(South Africa) JP(Japan) Lab Accreditation Bureau, ISO/IEC 17025, Certificate# L2323  
HEAT  
208T  
US  
.0411  
18.1210  
.4495  
1.7280  
.3085  
.0752  
8.1155  
.0270  
SI %  
  
SI %  
  
.2290

CM % C % CR % CU % Mn % Mo % N % Ni % P % S %

### MECHANICAL PROPERTIES

Product Id#	Coil #	UTS	20C	2% YS	20C Elong	%	Tensile	Grain	Hard
05208T AA	05208T AA	F T	104.99	59.76	43.71	56.50	13.00	R45T	

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical  
Dept. Mgr.  
KRTS LARK  
12/08/2016

## Test de dureté Rockwell Rockwell Hardness Test

Client / Customer : **LES ACIERS TRANSBEC (1997) LTÉE.**

Adresse / Address : **4054 BOUL. LE CORBUSIER # 201  
LAVAL, QC  
H7L5R2**

# commande Sapa / Sapa order # : **6120924**

# bon de commande / Purchase order # : **OU - 47030**

# de matrice / Die # : **MS 9903** Description : **3/8"ROD**

Alliage & trempage / Alloy & temper: **6061 T6** Longueur / Length : **6097 mm**

# de contrôle / Control # : **82386-1**

# de coulée / Cast # : **68219**

Dureté Rockwell E / Rockwell E hardness : **89 HRE** Min. requis / Min. required : **88 HRE** Max. permis / Max. permitted : **100 HRE**

Composition chimique typique / Typical chemical composition :

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Tl
6063	0,20 - 0,60	0,35 Max	0,10 Max	0,10 Max	0,45 - 0,90	0,10 Max	0,10 Max	0,10 Max
6005	0,60 - 0,90	0,35 Max	0,10 Max	0,10 Max	0,40 - 0,60	0,10 Max	0,10 Max	0,10 Max
6005A	0,66- 0,74	0,14 - 0,28	0,08 - 0,16	0,18 - 0,26	0,46 - 0,54	0,03 Max	0,05 Max	0,05 Max
6061	0,40 - 0,80	0,70 Max	0,15 - 0,40	0,15 Max	0,80 - 1,20	0,04 - 0,35	0,25 Max	0,15 Max
6351	0,7 - 1,3	0,5 Max	0,10 Max	0,40 - 0,80	0,40 - 0,80	---	0,20 Max	0,20 Max

Nous certifions que le matériel fourni rencontre les exigences chimiques telles qu'annoncées par la norme ASTM B-221-14 excepté pour la section 8.2 (nombre de spécimen) .

We hereby certify that the material supplied meets the chemical properties as published by the ASTM B-221-14 except for section 8.2 (number of specimen) .

Sincèrement vôtre,  
Yours truly,

date : **2017-01-27**



Gilles Pelletier  
Technicien de la qualité  
Quality technician



#2497

FAL-12-V

P011305  
49289

CAN ART  
ALUMINUM EXTRUSION L.P.

Material Test Report

Manifest: 328412

Ticket:  
5552835

Our Order: 437823 - 2      Cust P.O.: 792398  
Die: ES05740      Part: 5131-8251  
Alloy Temper: 6061 T6511      Description: 1.000 x 2.000  
Print Date: 8/16/17

CastNum	Chemical Composition								Maximum	
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	OtherEach	OtherTotal
3B6402	0.60	0.19	0.23	0.04	0.84	0.05	0.01	0.02	0.05	0.15

Mechanical Properties						
Sample	Cast #	Lot #	Test Date	Ultimate Tensile	Yield 2% offset	Elongation 2" gage length
ID						
427847	3B6402	A11	8/9/17	41.86	38.62	8.9

Applicable Specifications: ASTMB221-14      AMS-QQ-A200/8A

Country of Origin: ONTARIO, CANADA

Can Art Aluminum Extrusion Inc. certifies that materials shipped under this order have been inspected and tested in accordance with Aluminum Association and agreed upon customer specifications. Can Art assumes no liability for additional costs which may be incurred during the customer's manufacture and sale of its products, and is subject only to the replacement of any materials not within agreed upon specifications provided written notification is received by Can Art within 30 days from the date of shipment.



Evan Eng, Quality Assurance Manager

**CERTIFICATION DU MATERIEL**

**CLIENT:**  
SALABERRY-DE-VALLEYFIELD

ACIER OUELLETTE INC DIV.DE

935 BOUL DU HAVRE  
SALABERRY-DE-VALLEYFIELD, QUEBEC  
QC J6S 5L1

**NUMÉRO DE COMMANDE:** 14734451 000030

**COMMANDE DU CLIENT:** AC11905

**NUMÉRO DE PIÈCES:**

**NUMÉRO DE LIVRAISON:** 803419876 000030

**NUMÉRO D'ARTICLE:** 160001373

**DESCRIPTION INVENTAIRE:** FLT EXT 6061 T6511 1 X 2 X 144

**DESCRIPTION ARTICLE FINIS:** ALUM Barre PLTE EXT 6061 T6511  
1po X 2po X 144po

**NUMERO (S) DE COULEE** BRAME / BOBINE / TIN (le cas échéant)

3B6402 5552835

**CERTIFICATION**

Un sondage de nos sources matérielles a indiqué que ni le mercure ni des substances radioactives ne sont introduits dans leurs produits ni ne sont utilisés dans aucun de leurs procédés. Alors que nous ne faisons aucun test indépendant pour le mercure ou la radiation, il n'y a rien dans le système de Ryerson qui pourrait entraîner la contamination de l'un ou l'autre type.

Ce document certifie que le matériel décrit ci-dessus a été expédié conformément à votre commande. Le producteur du matériel a certifié à Ryerson qu'il a été produit conformément aux spécifications suivantes:

ASTM B221

12/05/2017



Thomas Endres

Vice-président - Approvisionnement

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061t6R0.250  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598

MATERIAL CERT REC'D: Yea  
 QUANTITY RECEIVED: 20"  
 QUANTITY INSPECTED: 20"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250  
 THICKNESS RECEIVED: 0.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Astm B211</i>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Test # 67081</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>jl</u> <u>DAS</u> <u>9</u>	SIGNED OFF BY:	
DATE:	<u>DEC 14 2017</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

88

7

8

57

1

1

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION:  
QQ-A-22518 OR AMS-QQ-A-22518 (OR AMS 41174-1284-154116)  
OR QQ-A-2008 OR AMS-QQ-A-2008 (OR AMS 4160)  
OR 4160-4404P ACT 10014

ORASTM B2110R A

1 RISK: INCOME

WHERE "D.DDD" = DIAMETER IN INCHES  
E.G. 5/8" ROUND BAR = M6061T6R0.625

9

6

RELEASED  
2009-09-09  
*[Signature]*  
D

REV.	DESCRIPTION	REF ID: REF-PAR-05-00A	
		DS	DATE
A	NEW ISSUE		
DESIGN	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	CP	09/07/13
DRAWN	M6061-T6R	REV. B	
CHECKED		SHEET 1 OF 1	
MFG. APPR.		NTS	
APPROVED		SCALE	
DE APPR.			
DATE	09.07.13		
<small>THE DOCUMENT IS A PRINTOUT OF THE COMPUTER SYSTEM OF DART AEROSPACE LTD. IT IS NOT TO BE USED FOR TRADE OR COMMERCE OR AS A CONTRACTUAL DOCUMENT. IT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS THE PROPERTY OF DART AEROSPACE LTD.</small>			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176R1-500  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021845

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20"  
 QUANTITY INSPECTED: 20"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.500  
 THICKNESS RECEIVED: 1.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Astm B271</i>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Heat #36375</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 181 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>jl</u>	DAS 9	SIGNED OFF BY: _____
DATE:	<u>DEC 14 2017</u>		DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606146R0.625  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021846

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 40"  
 QUANTITY INSPECTED: 40"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625  
 THICKNESS RECEIVED: 0.625  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	A5tm B-221
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Heat # 66092
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>ref</u> <u>DAS</u> DATE: <u>DEC 14 2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-2251/8 OR AMS-QQ-A-2251/8 (OR AMS 4117/4128/4115/4116)  
OR QQ-A-2001/8 OR AMS-QQ-A-2001/8 (OR AMS 4160)

## SPECIFICATION:

卷之三

WHERE "D.DDD" = DIAMETER IN INCHES  
E.G. 5/8" ROUND BAR = M6061T6B0 625

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

卷之三

RELEASED  
2009-09-09  
M

B	REFORMAT DWG. ADD B211& B221 SPEC (ZN D81).	CP	09.07.13
A	REF PAR 08-020A	DS	01.06.08
REV.	NEW ISSUE	DATE	DATE
DESIGN	DESCRIPTION	DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		M6061T6R	SHEET 1 OF 1
DEA APPR.		TITLE	SCALE
DATE	09.07.13	606-1-T6 ROUND BAR	
 <small>THE DRAWINGS ARE THE PROPERTY OF DART AEROSPACE LTD. AND ARE THE CONFIDENTIAL PROPERTY OF DART AEROSPACE LTD. THEY ARE TO BE KEPT SECURE AND ARE NOT TO BE COPIED OR DISCLOSED WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.</small>			

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061+6R0.750  
 DATE: DEC 14 2017

PO / BATCH NO.: 038398/502187

MATERIAL CERT REC'D: Y  
 QUANTITY RECEIVED: 80"  
 QUANTITY INSPECTED: 40"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750  
 THICKNESS RECEIVED: 0.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Astm B-221</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Heat # 68706</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 181 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pd</u> <u>DAS</u> DATE: <u>DEC 14 2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061H6R0.375  
 DATE: DEC 14 2017

PO / BATCH NO.: 038588/502844

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 20"  
 QUANTITY INSPECTED: 20"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375  
 THICKNESS RECEIVED: 0.375  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> <input type="checkbox"/> N	- ASTM B.221
CORRECT THICKNESS	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<del>Heat # C.24551/1-4-1 HT# 68219</del>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pl DD.</u>	SIGNED OFF BY: <u>*</u>
DATE: <u>DEC 14 2017</u>	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

D

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR

SPECIFICATION: QQ-A-225B OR AMS-QQA-225B OR AMS 4117/4128/4115/4116

OR QQ-A-2008 OR AMS-QQA-2008 (OR AMS 4160)

OR ~~ASTM B211~~ OR ~~ASTM B221~~

M6061T6R[D DDD]

| DIA.

WHERE "D,DDD" = DIAMETER IN INCHES

E.G. 5/8" ROUND BAR = M6061T6R0.625

is ~~ASTM B16~~ acceptable.  
RP.

C

B

A

		REFORMAT DRAWING ADD B211A B221 SPEC (ZIN DB-1), REF PAR 08-020A		CP	09-07-13
A REV		NEW ISSUE		DS	01-06-08
DESIGN		DESCRIPTION		DATE	
DRAWN	SJ	HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.	M6061T6R	REV. B	
MFG. APPR.		TITLE		SHEET 1 OF 1	
APPROVED		DATE	06061-T6 ROUND BAR	SCALE	NTS
DE APPR.		DATE	09.07.13	NOT FOR USE	PRINTED ON ONE SIDE OF THE DRAWING
		COMPILED BY DART AEROSPACE LTD		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING
		NOT FOR USE		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING
		PRINTED ON ONE SIDE OF THE DRAWING		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING

RELEASED  
2009-09-09  
*MP*

		REFORMAT DRAWING ADD B211A B221 SPEC (ZIN DB-1), REF PAR 08-020A		CP	09-07-13
A REV		NEW ISSUE		DS	01-06-08
DESIGN		DESCRIPTION		DATE	
DRAWN	SJ	HAWKESBURY, ONTARIO, CANADA			
CHECKED		DRAWING NO.	M6061T6R	REV. B	
MFG. APPR.		TITLE		SHEET 1 OF 1	
APPROVED		DATE	06061-T6 ROUND BAR	SCALE	NTS
DE APPR.		DATE	09.07.13	NOT FOR USE	PRINTED ON ONE SIDE OF THE DRAWING
		COMPILED BY DART AEROSPACE LTD		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING
		NOT FOR USE		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING
		PRINTED ON ONE SIDE OF THE DRAWING		PRINTED ON ONE SIDE OF THE DRAWING	PRINTED ON ONE SIDE OF THE DRAWING

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: mb06176B1.000X02.000  
 DATE: DEC 15 2017

PO / BATCH NO.: 038398/5021854

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 36 "  
 QUANTITY INSPECTED: 36 "  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.00  
 THICKNESS RECEIVED: 1.00  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> <input type="checkbox"/> N	- AMS QQ-A2003
CORRECT THICKNESS	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<del>Heat# 3207765P02 HT# 3B6402</del>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>PD.</u>	SIGNED OFF BY: <u>PD.</u>
DATE: <u>DEC 15 2017</u>	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION:

QQ-A-225/8 OR AMS-QQ-A-225/B (OR AMS 41774128/4115/4116)  
OR QQ-A-2009 OR AMS-QQ-A-2008 (OR AMS 4160)

△

PART NUMBER:

M6061T6B | T.TTT | X | WWWWW |  
| THICK | | | WIDTH |

WHERE "T.TTT" = THICKNESS IN INCHES

"WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

**RELEASED**  
2009-08-03  
MWD

B	REMOVE QQ-A-25011 OPTION, REFORMAT NOTES, ADD	CP	09/07/13
A	NEW ISSUE	DS	01/06/08
REV	DESCRIPTION	BY	DATE
DESIGN	DS	<b>DART AEROSPACE LTD</b>	
DRAWN	60	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. B
MFG. APPR.		M6061T6B	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		6061-T6 BAR	NTS
DATE	09/07/13		

NOTES:  
1. THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD.  
2. IT IS TO BE USED BY AUTHORIZED PERSONNEL ONLY.  
3. IT IS TO BE KEPT IN A SECURE LOCATION AND IS NOT TO BE COPIED OR  
REPRODUCED EXCEPT WITH THE WRITTEN APPROVAL OF DART AEROSPACE LTD.

1  
2

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304R0.4375  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021848

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12"  
 QUANTITY INSPECTED: 12"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.4375  
 THICKNESS RECEIVED: 0.4375  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Astm A276</i>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<i>Heat # 102445</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pd</u> <sup>DAS</sup> DATE: <u>DEC 14 2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS ROUND BAR  
(NOTE: AISI 303 NOT ACCEPTABLE)

SPECIFICATION: ASTM A276  
PART NUMBER: M304RD.DDD  
DIA.

WHERE "D.DDD" = DIAMETER IN INCHES  
EG. 0.75" ROUND BAR = M304R0.750

**RELEASED**  
*(Ch D 25/10/08)*

B	REFORMAT DWG. ADD SPECS (ZN D6-1), REF PAR 08-020A	CP	09-07-15
A	NEW ISSUE	AS	08-03-03
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>AJS</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>gj</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>AD</i>	M304R	SHEET 1 OF 1
APPROVED	<i>AD</i>	TITLE	
DE APPR.	<i>AD</i>	304/316 ROUND BAR	
DATE	09.07.15	SCALE	NTS

COPYRIGHT © 2008 BY DART AEROSPACE LTD

THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. IT IS THE PROPERTY OF DART AEROSPACE LTD.

IT IS NOT TO BE COPIED, REPRODUCED, OR DISCLOSED WITHOUT THE EXPRESS WRITTEN PERMISSION OF DART AEROSPACE LTD.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.500  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021849

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 36'  
 QUANTITY INSPECTED: 36"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500  
 THICKNESS RECEIVED: 0.500  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Astm A582</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>heat# 233C</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pd</u> DATE: <u>DEC 14 2017</u>	DAS SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR  
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:  
PART NUMBER:  
ASTM A582  
M303R(D,DDD)  
DIA.

WHERE "D,DDD" = DIAMETER IN INCHES  
EG. 0.75" ROUND BAR = M303R0.750



SPECIFICATION:  
PART NUMBER:

ASTM A582  
M303R(D,DDD)  
DIA.

WHERE "D,DDD" = DIAMETER IN INCHES  
EG. 0.75" ROUND BAR = M303R0.750

RECEIVED  
2010-07-02  
MP

B	REFORMATT DWG. ADD SPECS (ZN D8-1), REF PAR 08.020A	CP	10.01.05
A	NEW ISSUE	DIS	01.12.20
REV.	DESCRIPTION	BY	DATE
	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.01.05	SCALE	NTS

DART AEROSPACE LTD	
HAWKESBURY, ONTARIO, CANADA	
DRAWING NO.	
M303R	
REV. B	
SHEET 1 OF 1	
TITLE	
303 ROUND BAR	
COPYRIGHT © 2001 BY DART AEROSPACE LTD	
THIS DOCUMENT IS PROPRIETARY AND CONFIDENTIAL. NOT TO BE COPIED OR DISCLOSED TO ANY PERSON OR COMPANY, OR FOR ANY PURPOSE, WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.	

2

3

8

7

6

5

4

3

2

1

0

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303R0.750  
 DATE: DEC 14 2017

PO / BATCH NO.: 038598/5021850

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 36"  
 QUANTITY INSPECTED: 36"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750  
 THICKNESS RECEIVED: 0.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORROSION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	Astm A582
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	heat#490862 409862
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>gul</u> DAS DATE: <u>DEC 14 2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS ROUND BAR  
(NOTE: AISI 304/316 NOT ACCEPTABLE)

SPECIFICATION:  
    
ASTM A682  
PART NUMBER:  
M303RD, D, DDD  
DIA.

WHERE "D,DDD" = DIAMETER IN INCHES  
EG. 0.75" ROUND BAR = M303R0.750

**R E L E A S E D**  
**R 2010-02-07**

B	REFORMAT DWG. ADD SPECS (ZN DB-1), REF PAR 08-020A	CP	10 01-05
A	NEW ISSUE	DS	01-12-20
REV.	DESCRIPTION	BY	DATE
DESIGN	 <b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	DRAWING NO.		REV. B
CHECKED	M303R		SHEET 1 OF 1
MFG. APPR.			SCALE
APPROVED			NITS
DE APPR.			
DATE	10.01.05		

2

4

3

5

6

7

8

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

101

102

103

104

105

106

107

108

109

110

111

112

113

114

115

116

117

118

119

120

121

122

123

124

125

126

127

128

129

130

131

132

133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

148

149

150

151

152

153

154

155

156

157

158

159

160

161

162

163

164

165

166

167

168

169

170

171

172

173

174

175

176

177

178

179

180

181

182

183

184

185

186

187

188

189

190

191

192

193

194

195

196

197

198

199

200

201

202

203

204

205

206

207

208

209

210

211

212

213

214

215

216

217

218

219

220

221

222

223

224

225

226

227

228

229

230

231

232

233

234

235

236

237

238

239

240

241

242

243

244

245

246

247

248

249

250

251

252

253

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M4140H-R1.250  
 DATE: DEC 15 2017

PO / BATCH NO.: 0385485021851

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 6"  
 QUANTITY INSPECTED: 6"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>A193 Gr B7</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<u>Heat # NFT16202066</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>jl</u> <u>das</u>	SIGNED OFF BY:	
DATE:	<u>DEC 15 2017</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



DESIGN <i>RF</i>	DRAWN BY <i>RF</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>RF</i>	APPROVED <i>RF</i>	DRAWING NO. M4140H-R	REV. A SHEET 1 OF 1
DATE 05.02.21		TITLE 4140 ROUND BAR	SCALE 1:1
A	05.02.21	NEW ISSUE	

PURCHASE MATERIAL: AISI 4140H ROUND BAR

PER AISI 4140 OR ASTM A304-02 / -A-434-BC /

*-A193-D3 - GRADE-B7 / -A29-03 / -A322-91 OR*

*UNS # - G41400*

*MINIMUM ULTIMATE TENSILE STRENGTH = 100 ksi*

*MINIMUM YIELD TENSILE STRENGTH = 66 ksi*

PART NUMBER: M4140H-R | D.DDD | WHERE D.DDD = DIAMETER IN INCHES  
DIA

EG.  $7/8$ " ROUND BAR = M4140H-R 0.875

RELEASED  
05.03.25 #

Copyright © 2005 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061+6 BO.625x01.500 PO / BATCH NO.: 038598/5021852  
 DATE: DEC 15 2017

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 20"  
 QUANTITY INSPECTED: 20"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.625  
 THICKNESS RECEIVED: 0.625  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>ASTM B221</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat # 201604056</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>das</u>	SIGNED OFF BY:	
DATE:	<u>DEC 15 2017</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606176B1000X04.000  
 DATE: DEC 15 2017

PO / BATCH NO.: 038388/5021853

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12"  
 QUANTITY INSPECTED: 12"  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> <input type="radio"/> N	<i>Astm B221</i>
CORRECT THICKNESS	<input checked="" type="radio"/> <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> <input type="radio"/> N	<i>Heat# 68708</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>pd</u> DATE: <u>DEC 15 2017</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

8  
7  
6  
5  
4  
3  
2  
1

D

D

PURCHASE MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR

SPECIFICATION: QQ-A-2258 OR AMS-QQA-2258 (OR AMS 4174128/4115/4116)

OR QQ-A-2008 OR AMS-QQA-2008 (OR AMS 4160)

OR ASTM B211 OR ASTM B221

*ASME B16.10*

PART NUMBER: M6061T6B | T.TTT | X | WW WWW

THICK | WIDTH

WHERE "T.TTT" = THICKNESS IN INCHES

"WW WWW" = WIDTH IN INCHES

E.G. 1.0" X 12.0" BAR = M6061T6B1.000X12.000

C

C

B

B

8  
7  
6  
5  
4  
3  
2  
1

A

A

**RELEASED**  
2009-05-13  
*MW*

B	REMOVE QQ-A-22011 OPTION, REFORMAT NOTES, ADD ASIM B21/B221 (2ND DRAFT)	CP	09.07.13
A	NEW ISSUE	DS	01.06.08
REV. DATE			
DESIGN	DS	DESCRIPTION	BY DATE
DRAWN	<i>DS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>AS</i>	M6061T6B	SHEET 1 OF 1
APPROVED	<i>MW</i>	TITLE	SCALE
DE APPR.	<i>MW</i>	6061-T6 BAR	NTS
DATE	09.07.13	Copyright © 2009 by DART AEROSPACE LTD. NOT FOR RELEASE TO THE PUBLIC, GOVERNMENT, OR OTHER PARTIES Without the express written permission of DART AEROSPACE LTD.	

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304516GA  
 DATE: DEC 15 2017

PO / BATCH NO.: 038598/5021855

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 192 lb  
 QUANTITY INSPECTED: 192 lb  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.63  
 THICKNESS RECEIVED: 0.63  
 SHEET SIZE ORDERED: 4x8  
 SHEET SIZE RECEIVED: 4x8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT FINISH	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORROSION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT GRAIN DIRECTION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT MATERIAL PER M-DRAWING	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Astm A240</i>
CORRECT THICKNESS	Y <input checked="" type="radio"/> N <input type="radio"/>	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT REF # TO LINK CERT	Y <input checked="" type="radio"/> N <input type="radio"/>	<i>Heat # 3505</i>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="radio"/> N <input type="radio"/>	
CORRECT M# ON THE MATERIAL	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N <input type="radio"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N <input type="radio"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DEC 15 2017</u> 	SIGNED OFF BY: _____
DATE: <u>DAS</u> <u>0</u>	DATE: _____

*Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in*

# SPECIFICATION CONTROL DRAWING

D PURCHASE MATERIAL: AISI 304/316 SS SHEET  
SPECIFICATION: ANNNEALED

MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASME SR240

FINISH:

FINISH DART M-NUMBER  
UNPOLISHED No. 1 IDENTIFIER  
UNPOLISHED No. 2D 1P  
UNPOLISHED No. 2B NONE  
POLISHED No. 3 2P  
POLISHED No. 4 3P  
BUFFED No. 6 6P  
BUFFED No. 7 7P  
BUFFED No. 8 8P

PART NUMBER: M304S TT GA #P

WHERE "TT" = GAUGE THICKNESS  
WHERE "#P" = FINISH IDENTIFIER

EG. 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG. 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04375	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.08375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.3125	0.301 - 0.325

△ D

D	ADDED GAUGES 0-7.	AJS	15.01.06
C	DEFINED FINISH OPTION (ZINC) AND EXAMPLE OF MATERIAL IN WITH FINISH OTHER THAN 2B (ZINC).	MB	12.09.20
B	REFORMAT DWG. ADD ASTM/ASME SPEC (ZIN DB-1). ADD GAUGE REF (C8-1). REF PAR 08-020A	CP	09.06.01
A	NEW ISSUE	DS	01.06.24
REV	DESCRIPTION	BY	DATE
DESIGN	DS	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV D
MFG. APPR		M 304S	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		304/316 SS SHEET	NTS
DATE	15.01.06		

2

Copyright © 2001 by DART AEROSPACE LTD  
This document contains neither recommendations nor specifications. It is the responsibility of the user to determine its suitability for a particular application. It is not to be reproduced or distributed without the written permission of the manufacturer. All rights reserved.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3045 226-A  
 DATE: DEC 15 2017

PO / BATCH NO: 038598/5021857

MATERIAL CERT REC'D: YOS  
 QUANTITY RECEIVED: 32 M<sup>2</sup>  
 QUANTITY INSPECTED: 32 M<sup>2</sup>  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.32  
 THICKNESS RECEIVED: 0.32  
 SHEET SIZE ORDERED: 4K8  
 SHEET SIZE RECEIVED: 4K8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<i>Astm A240</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> <input type="checkbox"/> N	<i>Heat# 2087</i>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>pjl</u>	DAS	
DATE:	<u>DEC 15 2017</u>	SIGNED OFF BY:	
		DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET

SPECIFICATION:

MIL-S-5059

OR AMS 5513 (304)

OR

AMS

5524 (316)

OR

ASME

SA240

OR

ASME

SA240

FINISH:

UNPOLISHED No. 1  
UNPOLISHED No. 2D  
UNPOLISHED No. 2B  
POLISHED No. 3  
POLISHED No. 4  
BUFFED No. 6  
BUFFED No. 7  
BUFFED No. 8

1P  
2D  
NONE  
3P  
4P  
6P  
7P  
8P

DART NUMBER  
IDENTIFIER

1P  
2D  
NONE

PART NUMBER:

M304S|TT|GA|#P

WHERE "TT" = GAUGE THICKNESS

WHERE "#P" = FINISH IDENTIFIER

EG: 16 GAUGE SS SHEET 2B FINISH = M304S16GA

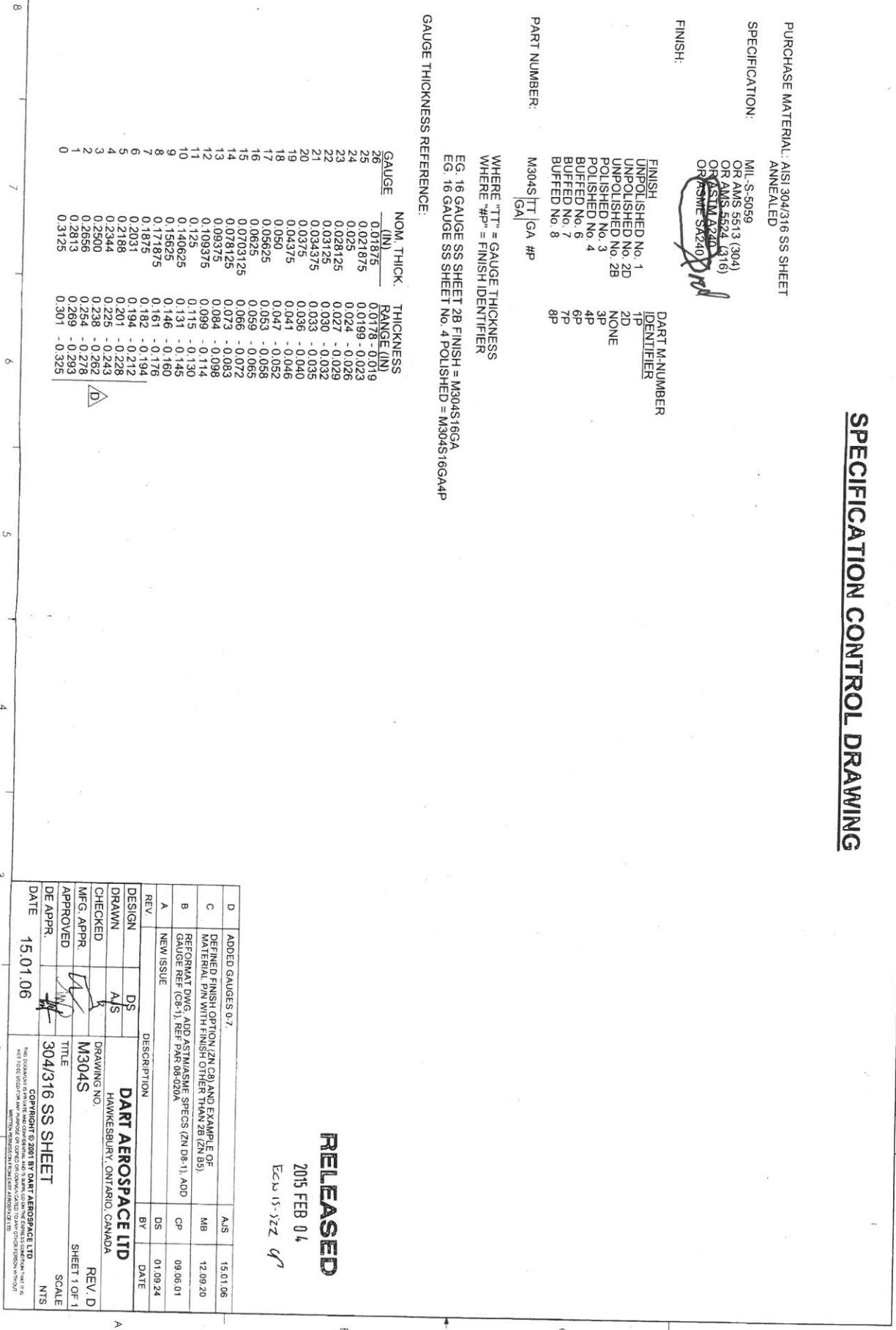
EG: 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM. THICK. (IN)	THICKNESS RANGE (IN)
26	0.01375	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.04175	0.041 - 0.046
18	0.050	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.0625	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.09375	0.084 - 0.098
12	0.109375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.176 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.301	0.301 - 0.325

**RELEASED**  
2015 FEB 04  
ECL 15-222

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	
MFG. APPR.		M304S	
APPROVED		TITLE	
DE APPR.		304/316 SS SHEET	
DATE	15.01.06	SCALE	NTS
COMMENT	9	BY	DART AEROSPACE LTD
NOT FOR USE FOR ANY PURPOSE OR CONSTRUCTION, CONTRACTOR TO TAKE OTHER PERTINENT WRITING			
WRITTEN PROVISIONS THAT ARE NOT IN THIS DRAWING			



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M3045146A  
 DATE: DEC 15 2017

PO / BATCH NO.: 038698/5021836

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 64 Pcs  
 QUANTITY INSPECTED: 64 Pcs  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.063 0.063  
 THICKNESS RECEIVED: 0.063  
 SHEET SIZE ORDERED: 4X8  
 SHEET SIZE RECEIVED: 4X8

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Actm A240</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat# L22142025</i>
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>ml</u>	SIGNED OFF BY:	
DATE:	<u>DEC 15 2017</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

# SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SHEET  
ANNEALED

SPECIFICATION:

MIL-S-5059  
OR AMS 5513 (304)  
OR AMS 5524 (316)  
OR ASME SA240

FINISH:

FINISH	DART M NUMBER
UNPOLISHED No. 1	1P
UNPOLISHED No. 2D	2D
UNPOLISHED No. 2B	NONE
POLISHED No. 3	3P
POLISHED No. 4	4P
BUFFED No. 6	6P
BUFFED No. 7	7P
BUFFED No. 8	8P

PART NUMBER:

M304S TT [GA] #P

WHERE "TT" = GAUGE THICKNESS

WHERE "P" = FINISH IDENTIFIER

EG 16 GAUGE SS SHEET 2B FINISH = M304S16GA  
EG 16 GAUGE SS SHEET No. 4 POLISHED = M304S16GA4P

GAUGE THICKNESS REFERENCE:

GAUGE	NOM THICK. (IN)	THICKNESS RANGE (IN)
26	0.01875	0.0178 - 0.019
25	0.021875	0.0199 - 0.023
24	0.025	0.024 - 0.026
23	0.028125	0.027 - 0.029
22	0.03125	0.030 - 0.032
21	0.034375	0.033 - 0.035
20	0.0375	0.036 - 0.040
19	0.041	0.040 - 0.046
18	0.045	0.047 - 0.052
17	0.05625	0.053 - 0.058
16	0.065	0.059 - 0.065
15	0.0703125	0.066 - 0.072
14	0.078125	0.073 - 0.083
13	0.08375	0.084 - 0.098
12	0.09375	0.099 - 0.114
11	0.125	0.115 - 0.130
10	0.140625	0.131 - 0.145
9	0.15625	0.146 - 0.160
8	0.171875	0.161 - 0.176
7	0.1875	0.182 - 0.194
6	0.2031	0.194 - 0.212
5	0.2188	0.201 - 0.228
4	0.2344	0.225 - 0.243
3	0.2500	0.238 - 0.262
2	0.2656	0.254 - 0.278
1	0.2813	0.269 - 0.293
0	0.301	- 0.325

RELEASED  
2015 FEB 04  
ECL 15-122

47

DART AEROSPACE LTD

B

D

C

D

DESIGN	DS	DART AEROSPACE LTD	
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	
		M304S	
MFG. APPR.		REV. D	
APPROVED		SHEET 1 OF 1	
DE APPR.		SCALE	
DATE	15.01.06	NTS	

NOT FOR USE OR QUOTATION PURPOSES OR CONSTRUCTION PURPOSES. THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE KEPT IN A SECURE PLACE AND IS NOT TO BE COPIED OR DISSEMINATED.

1

2

3

4

5

6

7

8



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

## PURCHASE ORDER PO038598

<b>Supplier:</b>	ACI001-VC Acier Ouellette Inc. 935 Boul. Du Havre Valleyfield QC J6S 5L1 Canada Phone: 800 667 4248 Fax: 450 377 5696	<b>PO No:</b>	PO038598
		<b>PO Date:</b>	12/7/17
		<b>Due Date:</b>	12/13/17
		<b>Purchase Order Revision:</b>	
		<b>Revision Date:</b>	
		<b>Ship-To Contact:</b>	Lavoie, Chantal Phone: clavoie@dartaero.com
<b>Ship To:</b>	1270 Aberdeen Street Hawkesbury ON K6A 1K7 Canada Phone: 613-632-5200	<b>Via:</b>	Ground
		<b>Pymt Terms:</b>	Net 30
		<b>Freight Terms:</b>	
		<b>Special Comments:</b>	QUOTE NO. SOU00756580,SOU0076051

### Items

Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M6061T6R0.250	6061-T6 Round Bar 0.250" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	20 ft	0 ft	20 ft	\$0.1565/ft	\$3.13
2	M6061T6R0.375	6061-T6 Round Bar .375" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	20 ft	0 ft	20 ft	\$0.3775/ft	\$7.55
3	M6061T6R1.500	6061-T6 Round Bar 1.50 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	20 ft	0 ft	20 ft	\$5.521/ft	\$110.42

ml 12/13/17

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	M6061T6R0.625	6061-T6 Round Bar .625" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	40 ft	0 ft	40 ft	\$0.99625/ft	\$39.85
5	M6061T6R0.750	6061-T6 Round Bar .750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	40 ft	0 ft	40 ft	\$1.3385/ft	\$53.54
6	M6061T6R0.563	6061-T6 Round Bar .563 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/14/17	120 ft	0 ft	120 ft	\$1.013666/ft	\$121.64
7	M304R0.4375	304 Round Bar 0.4375 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	12/13/17	12 ft	0 ft	12 ft	\$1.5325/ft	\$18.39
8	M6061T6R1.750	6061-T6 Round Bar 1.750" : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117 4128/4115/4116 OR QQ-AA-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B221 OR ASTM B221 receive ft	Firmed	12/13/17	20 ft	0 ft	20 ft	\$7.2305/ft	\$144.61
9	M303R0.500	303 Round Bar 0.500" : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	12/13/17	36 ft	0 ft	36 ft	\$1.973888/ft	\$71.06
10	M303R0.750	303 Round Bar 0.750 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	12/13/17	36 ft	0 ft	36 ft	\$4.7455/ft	\$170.84
11	M303R1.000	303 Round Bar 1.00 : MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: 304/316 NOT ACCEPTABLE receive ft	Firmed	12/13/17	12 ft	0 ft	12 ft	\$7.901666/ft	\$94.82

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
12	M4140H-R1.250	4140 Round Bar 1.250 : AISI 4140H ROUND BAR PER AISI4140R ASTM A304-02-A-434-BC/-A193-03- GRADE B7/-A29-03/-A322-91 OR UNS#-G41400 MINIMUM ULTIMATE TENSILE STRENGTH=100 KSI MINIMUM YIELD TENSILE STRENGTH=66KSI receive ft	Firmed	12/13/17	6 ft	0 ft	6 ft	\$6.921666/ft	\$41.53
13	M6061T6B0.625X01.500	6061-T6 Bar .625 X 1.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	12/13/17	20 ft	0 ft	20 ft	\$3.2645/ft	\$65.29
14	M6061T6B1.000X04.000	6061-T6 Bar 1.00 X 4.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	12/13/17	12 ft	0 ft	12 ft	\$12.765833/ft	\$153.19
15	M6061T6B1.250X04.500	6061-T6 Bar 1.25 X 4.50 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	12/13/17	12 ft	0 ft	12 ft	\$22.91666/ft	\$275.00
16	M6061T6B1.000X02.000	6061-T6 Bar 1.00 X 2.00 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	12/13/17	40 ft	0 ft	40 ft	\$7.46275/ft	\$298.51
17	M6061T6B1.500X3.000	6061T6 Bar 1.500 X 3.000 : MATERIAL: 6061- T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A- 225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ- A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	12/13/17	12 ft	0 ft	12 ft	\$14.020833/ft	\$168.25
18	M304S16GA	304/316 Sheet .063 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	12/13/17	192 sf	0 sf	192 sf	\$6.508625/sf	\$1,249.66

Items									
Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
19	M304S14GA	304SS sheet .080 : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	12/13/17	64 sf	0 sf	64 sf	\$8.365/sf	\$535.36
20	M304S22GA	304/316 .032 Sheet : MATERIAL: AISI 304/316 SS SHEET ANNEALED AS PER MIL-S-5059 OR AMS 5513 (304) OR AMS 5524 (316) OR ASTM A240 OR ASME SA240 receive sf	Firmed	12/13/17	96 sf	0 sf	96 sf	\$3.6232291/sf	\$347.83
21	M6061T6S.100	6061-T6 .100 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	12/13/17	48 sf	0 sf	48 sf	\$6.6047916/sf	\$317.03
22	M6061T6S.080	6061-T6 .080 Sheet : MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 receive sf	Firmed	12/13/17	144 sf	0 sf	144 sf	\$5.2480555/sf	\$755.72

Grand Total: \$5,043.21

## Order Notes

## Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 12/13/17 2:03 PM dart.lavoie.chantal